



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE MATTER OF:

APPLICANT: PREUKSCHAT

EXAMINER: BENJAMIN A. PEZZLO

SERIAL NO.: 10/008,895

GROUP ART UNIT: 3683

FILED: DECEMBER 7, 2001

FOR: CONTROLLABLE VIBRATION DAMPER WITH POWER DAMPING CONTROL

July 17, 2004

APPEAL BRIEF

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

S I R:

This is an appeal from the rejection of the Examiner of the
claims in the present application.

REAL PARTY IN INTEREST: Krupp Bilstein GmbH

RELATED APPEALS AND INTERFERENCES: None

STATUS OF CLAIMS:

Claims pending: 1 and 6

Claims withdrawn: 4, 5, 7 and 8

Claims cancelled: 2, 3, and 9

Claims appealed: 1 and 6

STATUS OF AMENDMENTS:

All amendments have been entered.

SUMMARY OF INVENTION:

A dashpot having a piston 3 mounted on the end of a piston
rod 2 and traveling back and forth inside a cylinder 1. A
reservoir 4 contains a compressed gas that compensates for the
volume of hydraulic fluid displaced by piston 3. Two regulating
valves 5 and 6 are hydraulically in parallel. A bypass valve 7
is in parallel with both regulating valves 5 and 6, and is

narrowly constricted. Bypass valve 7 provides minimal passage for the hydraulic fluid and thereby prevents the dashpot from being entirely blocked while regulating valves 5 and 6 are closed. Regulating valves 5 and 6 provide continuous regulation when closed, and allow the fluid to flow. Regulating valve 5 regulates the flow while piston 3 travels in the compression direction. Valve 6 regulates the flow while the piston travels in the decompression direction. The rate of flow depends on the difference between the pressure in an upper chamber 8 and a lower chamber 9. These two chambers are separated by piston 3. The flow rate is also dependent on the cross-section of the passage through regulating valves 5 and 6.

(Figure 1; specification: page 3, lines 1-26)

ISSUES:

The Examiner has applied the following references in the rejection of the claims:

U.S. 6,467,593 to Corradini

U.S. 5,647,461 to Jensen

U.S. 4,821,849 to Miller

U.S. 5,996,748 to Nezu.

The Examiner has rejected claims 1 and 6 under 35 U.S.C. 103(a) as being unpatentable over Corradini in view of Jensen, Miller and Nezu.

The Examiner considers that Corradini discloses a constant bypass having a non-variable flow-through cross-section.

GROUPING OF CLAIMS:

The claims of this group do not stand or fall together.

ARGUMENT

In considering the Examiner's comments relative to the reference patent to Corradini et al. (6,467,593), applicant finds that the Examiner is in error in asserting that this

reference patent discloses a fixed bypass valve with a non-varying constricted flow cross-section in parallel to a flow-regulating system, as provided by applicant.

According to the Examiner, the reference patent to Corradini in Figure 1 discloses a fixed bypass with non-variable flow cross-section, particularly with respect to the components 13 and 16. In support of his assertion, the Examiner cites Figure 1b, column 5, lines 58-67.

This part of the specification, however, relates to the construction of the valve in accordance with what is disclosed in Figure 1b, in which the passage through the tube 12 leads to the line 24 or 25.

This passage is formed from the cross-sections 15, 19 and 20.

The description of the specification referred to by the Examiner (column 5, lines 58 to 67) relates, however, particularly to Figures 10 to 13, as described in the paragraph beforehand in column 5, lines 48 to 58.

Figures 10 to 13 of the reference patent to Corradini disclose uniquely and clearly that the bypass cross-section of elements 15, 19 and 20 is widely opened and closed by means of the valve slider 14 and 18.

Accordingly, it is clearly shown that the reference patent to Corradini discloses a variable bypass cross-section which is largely opened or closed depending on the pressure difference.

It is submitted, therefore, that the Examiner is in error in asserting that the reference patent to Corradini discloses a "fixed bypass valve with a non-varying cross-section."

Since a fixed bypass valve with a non-varying constricted flow cross-section is an essential structure of applicant's invention, and since the base claim 1 includes this limitation, it is believed that the base claim 1 should be found allowable.

Claim 6 which is dependent on the base claim 1 and limits claim 1 further should thereby also be found allowable.

Claim 6, furthermore, is clear of the prior art because the subject matter that the flow-regulating system and the flow-shock-absorption component are accommodated in a separate unit in form of a flow regulating block outside the dashpot and communicating with the dashpot through hydraulic-fluid lines, is not shown in the reference patent to Corradini nor the remaining cited references.

The Examiner has applied the reference patents to Jensen, Miller, and Nezu, for disclosing electrically variable valves. Applicant, however, does not claim such electrically variable valves per se. Applicant claims such means only in combination with all of the other structure and limitations as defined in the parent claim 1. Accordingly, these additional references have no material bearing on applicant's invention.

In view of the preceding considerations, applicant finds that the Examiner has not understood the disclosure of the reference patent to Corradini and its relationship to applicant's invention.

Thus, the part in column 5, lines 62 to 65 of the reference patent to Corradini, makes it clear that the calibrated ports 19 and 15 have a sudden widening at their lower end 20. This condition is clearly described in this part of the reference by "the compression and/or extension intervention can be adequately corrected by performing calibrated ports 19 and 15 of compression 16 and extension 12 valves, with through areas of lower end 20 suddenly increased." This construction may also be seen in Figure 1a and Figure 1b.

Accordingly, it is provided there in this reference patent to Corradini, that these additional cross-sectional widenings of the ports 19 and 15 have the effect of enlarging the flow-through surface for the fluid, and enlarging the circulation of the fluid, so that strong or weak braking effects are avoided. In this part of the reference, as well as the part cited by the Examiner, it is clearly described that the sudden widening at

the lower end 20 belong to the calibrated ports 19 and 15. At the same time, the port 19 belongs to the compression valve 16, whereas the port 15 belongs to the suction valve 12.

In the Office Action of March 3, 2004 on page 2, point 2, line 6, the Examiner has denoted the elements 12 and 16 to be shock absorbing components of the compression stage and the suction stage. This may be seen from the Examiner's comment, "including at least one shock-absorption component for the compression phase and for a decompression phase (see components 12 and 16), respectively."

Since the part of the Corradini reference (6,467,593) in column 5, lines 58 to 67, also cited by the Examiner, describes clearly that the ports 15 and 19 with their sudden widenings at their ends 20 are parts of the components 12 and 16, the sectional drawing in Figure 1b of the ports 15 and 19 cannot be considered a separate constant bypass with constant cross-section and which are arranged parallel to the components 12 and 16.

The Examiner either views the components 12 and 16 as shock absorption components of the suction phase and the compression phase, or he views them, as noted in the Office Action, as components that are fixed bypass elements with non-variable flow-through cross-section, which are arranged hydraulically parallel to the damping elements of the suction phase and the compression phase.

Both of the preceding views cannot be held simultaneously or at the same time. The holding off both of these views at the same time, is not possible or feasible.

It is apparent, therefore, that the Examiner has erred in his understanding of the reference patent to Corradini.

In considering the reference patent to Corradini, furthermore, it is apparent that the sectional view shown in Figure 1b corresponds to the cross sections shown in Figures 10a-c, 11a-c, as well as Figures 12 and 13. In Figures 12 and

13, the reference numeral 20 particularly shows the position of the sudden widening of the cross-section. At the same time, Figures 12 and 13, as well as Figures 10 and 11, show the valve element 14 or 18 which covers more or less the flow cross-section 19 or 15.

This demonstrates that the ports 15 and 19 are ports of a variable damping element, and not a constant bypass having a non-variable flow-through cross-section. The only difference of Figures 12 and 13 with respect to Figure 1b is that in this Figure 1b the valve element 14 or 18 is not shown. This was probably done to make it possible to show better the sudden cross-sectional widening at the lower end 20 of the ports 15 and 19.

It is submitted that the reference patent to Corradini does not disclose in any part thereof, that the arrangement shown in Figure 1b has a constant bypass with non-variable flow cross-section. It is also not disclosed in this reference patent to Corradini, whatsoever, that it may be possible to arrange such a constant bypass with non-variable flow cross-section.

It is submitted that Figure 1b of the patent to Corradini shows clearly a variable flow cross-section.

It is also clearly described in the reference to the patent to Corradini in column 6, lines 41 to 43, that the calibrated ports 19 and 15 and/or the form of the flow cross-sectional widening 20 serve to fit or match the damping characteristic of the shock absorber and to vary this characteristic. These provisions in the reference patent to Corradini also make it clear that the element shown in Figure 1b is not a constant bypass with non-variable flow cross-section.

It is submitted, therefore, that the Examiner's understanding of the reference patent to Corradini is in error. This reference patent clearly does not disclose or anticipate applicant's invention.

The disclosure of the reference patent to Corradini does not correspond at all to applicant's arrangement, in view of the descriptions and the drawings that are provided in this reference patent.

The claims in the present application clearly do not read on the reference patent to Corradini.

It is submitted that applicant's invention differs materially from the reference patent to Corradini.

Since applicant's claims do not read on this reference patent to Corradini, it is believed that the claims should be found allowable in view of the misunderstanding of the reference patent to Corradini by the Examiner.

The Examiner has applied the reference patents to Jensen, Miller, and Nezu for disclosing electrically variable valves in a shock absorber. However, applicant does not claim such means per se. Applicant claims such means only in combination with all of the other structure, elements and limitations as defined in the claims. Consequently, these references have no material bearing on applicant's invention, and they do not anticipate the novel features of applicant's arrangement.

The attention of the Board of Appeals is respectfully directed to the Court decision in the case of *In re Bisley* (94 U.S.P.Q. 80, 86), in which the Court ruled that patentability is gauged not only by the extent or simplicity of physical changes, but also by the perception of the necessity or desirability of making such changes to produce a new result. When viewed after disclosure, the changes may seem simple and such as should have been obvious to those in the field. However, this does not necessarily negate invention or patentability. The conception of a new and useful improvement must be considered along with the actual means of achieving it in determining the presence or absence of invention. The discovery of a problem calling for an improvement is often a very essential element in an invention correcting such a problem. Though the problem, once realized,

may be solved by use of old and known elements, this does not necessarily negate patentability.

Furthermore, in the case of *ex parte* Chicago Rawhide Manufacturing Company (226 U.S.P.Q. 438), the Patent Office Board of Appeals ruled that the mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal, is not by itself, sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device. The Examiner has not presented any evidence to support the conclusion that a worker in this art would have had any motivation to make the necessary changes in the reference device to render the here-claimed device unpatentable.

In the case of *The Standard Oil Company vs. American Cyanamid Company* (227 U.S.P.Q. 293), the Court decided that the issue of obviousness is determined entirely with reference to a hypothetical person having ordinary skill in the art. It is only that hypothetical person who is presumed to be aware of all the pertinent prior art. The actual inventor's skill is irrelevant to the inquiry, and this is for a very important reason. The statutory emphasis is on a person of ordinary skill. Inventor's, as a class, according to the concepts underlying the constitution and the statutes that have created the patent system, possess something that sets them apart from the workers of ordinary skill, and one should not go about determining obviousness under 35 U.S.C. 103 by inquiring into what patentees (i.e., inventors) would have known or would likely have done, faced with the revelation of references. A person of ordinary skill in the art is also presumed to be one who thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate, whether by patient, and often expensive

systematic research or by extraordinary insight; it makes no difference which.

In combining references, as the Examiner suggests, applicant takes notes of the case *Uniroyal Inc. versus Rudkin-Wiley Corporation* (5 U.S.P.Q.2d 1434), in which it was ruled that when prior art references require a selective combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself. Something in the prior art as a whole must suggest the desirability, and thus the obviousness of making the combination.

The preceding decision is reinforced by the case *In re Dow Chemical Company* (5 U.S.P.Q.2d 1529), in which the Court decided that most technological advance is the fruit of methodical persistent investigation, as is recognized in 35 U.S.C. §103. The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure.

Furthermore, in the case of *United Merchants and Manufacturers Incorporated versus Ladd* (139 U.S.P.Q. 199), the District Court ruled that although from simplicity of device, and with advantage of hindsight, one might offhandedly be of opinion that anyone should have been able to make invention after studying prior art, claims are allowed since none of the reference discloses or suggests the concept which is the crux of the invention.

In the case of *ex parte Fleischmann* (157 U.S.P.Q. 155), the Patent Office Board of Appeals ruled that while it might be possible to select features from secondary references and mechanically combine them with primary reference to arrive at

applicant's claim combination, there is no basis for making such combination disclosed or suggested in references; only applicant's specification suggests any reasons for combining references; under 35 U.S.C. 103, that does not constitute a bar.

Finally, in the case of Meng and Driessen (181 U.S.P.Q. 94), the Court ruled that progress in crowded arts, usually made in small increments, is as important as it is in arts at the pioneer stage; constitution envisages and seeks progress in useful "arts," not just in those more esoteric or scientific.

In the Advisory Action of May 28, 2004, the Examiner asserts that "Corradini does not disclose a moving valve body." From that assertion the Examiner concludes erroneously that Corradini discloses a constant bypass having a non-variable flow-through cross-section.

It is submitted, however, that the issue here is not whether the valve body is moving. The issue is whether Corradini shows a non-variable constant flow cross-section. It is clear from the drawings and the specification that the Corradini patent shows, instead, a variable flow cross-section.

It is submitted that when the reference patent to Corradini is correctly understood, it may be seen that the claims in the application do not read at all on this reference patent, even when combined with the three additional references, Jensen, Miller, and Nezu.

Applicant provides for a new and marked improvement over the prior art when taking into account the proper interpretation of the reference patent to Corradini.

It is believed, therefore, that the claims in the application should be found allowable.

In view thereof, it is respectfully requested that the Examiner's decision to reject claims 1 and 6 over the patent to Corradini in combination with the additional three references, should be reversed by the Honorable Board of Appeals.

APPENDIX

The claims involved are as follows:

1. A regulated dashpot with shock-absorption force controls, for motor vehicles, comprising: at least one flow-regulating system including at least one shock-absorption component for a compression phase and for a decompression phase; at least one valve assembly with electrically variable flow resistance regulated by a regulating valve; at least one fixed bypass valve with a non-varying constricted flow cross-section hydraulically paralleling the flow-regulating system; said at least one flow regulating system for the compression phase and said at least one flow regulating system for the decompression phase being in the form of said regulating ~~valves~~ valve with variable flow constriction, said flow resistance being continuously stepless variable for providing continuous damping between soft and hard damping, said bypass valve preventing pressure pulses in damping fluid when said regulating valve transfers rapidly from open to close positions corresponding to upward wheel shocks and sudden wheel accelerations, so that sudden jolts are prevented when shifting between soft and hard damping for comfort in riding in said vehicles.

4. (withdrawn) A dashpot as defined in Claim 1, including previously adjusted pressure-dependent valve assemblies with a fixed flow cross-section for said compression phase and said decompression phase and having a hard performance curve, said valve assemblies hydraulically paralleling said system flow-regulating and said shock absorption component.

5. (withdrawn) A dashpot as defined in Claim 1, including previously adjusted pressure-dependent valve assemblies with a fixed flow cross-section for said compression phase and said decompression phase and having a soft performance

curve, said valve assemblies can be activated and deactivated individually or separately, said valve assemblies hydraulically paralleling said flow-regulating system and said shock absorption component.

6. A dashpot as defined in Claim 1, wherein said flow-regulating system and said flow- shock-absorption component are accommodated in a separate unit in form of a flow regulating block outside the dashpot and communicating with said dashpot through hydraulic-fluid lines.

7. (withdrawn) A dashpot as defined in Claim 1, wherein said flow-regulating system and said flow- shock-absorption component are accommodated in a position thereof.

8. (withdrawn) A dashpot as defined in Claim 1, wherein said flow-regulating system and said flow- shock-absorption component are accommodated in a bottom valve thereof. --

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Date of Signature

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